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ABSTRACT

The purposes of this study were to: (1) develop a valid and reliable instrument for direct recording of leadership behavioral characteristics of nursery school children; (2) develop a valid and reliable scale for teachers' rating of leadership behavioral characteristics of nursery school children; and (3) determine the degree of correlation between the observational measure of children's leadership behavioral characteristics and the teachers' ratings of children's leadership behavior. The Nursery School Leadership Observation Schedule (NSLOS) was so devised as to cover all the relevant behavior patterns which could be recorded within a five-minute observation period. The Nursery School Leadership Rating Scale (NSLRS) consisted of the same set of behavior units as the NSLOS in order to secure correlations of the two schedules. Each scale was a seven-point graphic series. The correlation of the observed and rated behaviors fulfilled the function of adding or subtracting further confidence in the validity of the instruments. The findings of the observation recorded on the NSLOS showed a relatively high and significant intraclass reliability among four observers. However, the ratings as graded by the raters on the NSLRS indicated that the intraclass reliability among the raters was high and significant, but the intraclass reliability of the fellowship ratings was comparatively lower. Possible explanations are offered. It can be assumed that the NSLOS and the NSLRS are in general valid and reliable for the measurement of leadership characteristics among nursery school children. Both instruments are appended. (RC)

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A NURSERY SCHOOL LEADERSHIP OBSERVATION SCHEDULE AND A NURSERY SCHOOL LEADERSHIP RATING SCALE

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ABSTRACT

This study was undertaken with a threefold objective: (1) to develop a valid and reliable instrument for direct recording of leadership behavioral characteristics of nursery school children; (2) to develop a valid and reliable scale for teachers' rating of leadership behavioral characteristics of nursery school children; and (3) to determine the degree of correlation between the observational measure of children's leadership behavioral characteristics and the teachers' ratings of children's leadership behavior.

The contents of the Nursery School Leadership Observation Schedule (NSLOS) and the Nursery School Leadership Rating Scale (NSLRS) were established (1) by an evaluation of the collected and selected statements representing leadership and its related behavioral patterns from relevant literature as well as from testing and observational schedules; and (2) by the observations made specifically for this purpose in the Nursery School of the School of Home Economics at UNC-G. Having gone through a period of pre-testing, examinations and discussions, coupled with constructive criticisms and suggestions, the instruments for this study were formulated. A panel of judges experienced in the field of Child Development appraised the NSLOS and the NSLRS and gave their final approval.

The NSLOS was so devised as to cover all the relevant behavior patterns which could be recorded within a five-minute observation period.

The NSLRS was consisted of the same set of behavior units as the NSLOS in order to secure correlations of the two schedules. Each scale was a seven-point graphic series.

Four regular observers, who were responsible for assessing the reliability of the NSLOS, observed and recorded simultaneously, but independently of each other. Everyone of the twenty-four children, who were enrolled at the Nursery School of the University of North Carolina at Greensboro, was observed four times. In testing the reliability of the NSLRS each child was rated by four different raters, composed of two teachers and two student-teachers. The said teachers rated the children independently without any consultation between or among themselves.

In this study the correlation of the observed and rated behaviors has fulfilled the function of adding or subtracting further confidence in the validity of the instruments.

The findings of the observation recorded on the NSLOS showed a relatively high and significant intraclass R among the four observers. However, the ratings as graded by the raters on the NSLRS indicated that the intraclass R among the raters were high and significant, but the intraclass R of the followership ratings were comparatively lower. In other words, the correlation between the observed and rated leadership was shown to be high and significant, while the correlation between the observed and rated followership low and insignificant.

Possible explanation for the low correlation among raters and between raters and observers in scoring followership behavior could be attributed to various reasons; namely, (1) the amount of experience

gained by working with nursery school children; (2) the degree of awareness of the types of behavior characteristics to be rated; and (3) the size or dimensions of the behavior units; and (4) relatively low level of consciousness regarding followership behavior, for not being a highly valued characteristic in a competitive and dynamic society.

It can be assumed that the NSLOS and the NSLRS are in general valid and reliable for the measurement of leadership characteristics among nursery school children.

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INTRODUCTION

This study was designed for the development of an observational schedule and a rating scale for measuring leadership among nursery school children.

Research in leadership characteristics of nursery schoolers has been found to be almost negligible, despite much interest has been taken and directed toward the study of leadership in various social settings. To meet the demand for further and more efficient research in leadership in children's groups, it is deemed expedient, if researchers are equiped with some kind of instruments with which to measure leadership characteristics more effectively.

This study was conducted by (1) the formulation and definition of the problem of leadership; (2) review of literature pertaining to this study as theoretical background; (3) following the research procedures as designed; (4) presentation of the results with discussions; and (5) a summary with conclusions and recommendations.

The main objective of the study, as indicated above, was the development of a valid and reliable observational schedule and a rating scale for measuring and assessing leadership characteristics among nursery school children. In this connection, it was found that correlations between these two instruments served as a means of adding or substracting further confidence in the validity of the schedule and the scale.

CHAPTER I

FORMULATION AND DEFINITION OF THE PROBLEM

In recent years much interest has been directed toward the study of leadership in various social settings. The emphasis has been placed on the study of leadership behavior among school-age children, among adult groups, and among adult leaders of children's groups. However, research in leadership characteristics exhibited by nursery school children has been almost neglected.

Some research in leadership or ascendant behavior among nursery school children was conducted in the 1930s and the 1940s by Parten (1932), Jack (1934), and Merei (1949). Most of the studies, however, pertained mainly to nursery school children's social behavior and social interaction, which are either directly or indirectly related to leadership behavior. These were aspects of leadership behavior investigated by various researchers, such as Goodenough (1927), Berne (1930), Buhler (1938), and Hartup (1965).

A variety of methods has been used in observing and assessing leadership and social behavior of nursery school children and other age groups. The six generally accepted observation methods are diary description, time sampling, event sampling, trait sampling, and field unit analysis (Wright, 1960). Many studies were based on narrative records of behavior, activities, and conversations of the children. Ratings and scorings were made after the observational periods. Most

studies concerning social behavior and leadership among nursery school children have employed the time sampling method (Goodenough, 1928; Loomis, 1931; Parten, 1932).

In recent years many child behavior studies have used both rating scales and direct behavior unit observations to measure the kinds and amounts of behavior in the nursery school setting (Sears et al., 1953). However, the research in leadership among nursery school children as reviewed, has not employed these two methods in any one study, nor has leadership among nursery school children been recorded by the direct behavior unit observational method. Furthermore, although there are various rating scales of social behavior of nursery school children, there is not one tailored to rating leadership and its related characteristics.

In view of the fact that there is a need for more research in the area of investigating the "dimensions of a child member's leadership in children's groups (Mussen, 1960, p. 833)," the following instruments would be useful in studying leadership behavior among nursery school children:

1. A direct behavior unit observation schedule. This type of time sampling method of observation offers many advantages, as it permits objectivity, systematization, quantification and is economical to administer and to score. Furthermore, a direct measurement of the frequencies of leadership and followership behaviors can be made.
2. A teachers' rating scale of leadership behavior. This technique for determining the teachers' appraisals of the leadership behavior of

individual children can be used for comparing the behavior of each child to the behavior of other children in the group. It also has the value for discovering the relation between teacher ratings and direct observations of leadership and followership behaviors.

Purpose of the Study

Being aware of the need for and the value of a specific observation schedule and a specific rating scale, the present study was undertaken. The main purposes of this study were threefold: (1) to develop a valid and reliable instrument for direct recording of leadership behavioral characteristics of nursery school children; (2) to develop a valid and reliable scale for teachers' rating of leadership behavioral characteristics of nursery school children; and (3) to determine the degree of correlation between the observational measure of children's leadership behavioral characteristics and the teachers' rating of children's leadership behavior.

Assumptions

The assumptions basic to this study are the following:

1. Leadership and its characteristic behaviors can be categorized.
2. Leadership behavior among nursery school children can be observed and recorded.
3. Leadership behavior among nursery school children can be rated.

Subjects

The subjects were twenty-five children enrolled in the three-

and four-year-old groups during the regular session in the Nursery School of the School of Home Economics at the University of North Carolina at Greensboro. Twelve children were in the younger group, six of whom were girls and six were boys. Thirteen children, seven girls and six boys, were in the older group.

Definition of Terms

For the purpose of clarifying the meanings of specific terms used in the study, the following are defined:

Leadership--A concept that is applied to the situation when a child gives direction, command, order, request, or persuasion, etc., to other children over whom he has influence and from whom he gets cooperation and submission.

Followership--A concept applied to the situation when a child takes directions or orders from another child or children. He imitates the behaviors and/or conforms to the desires and directions of other children.

Successful leadership--A child is perceived as displaying successful leadership when his "leadership behavior" acquires the compliance, performance, submission, and/or imitation of another child or children.

Unsuccessful leadership--A child is perceived as displaying unsuccessful leadership when his "leadership behavior" fails to acquire the compliance, performance, submission, and/or imitation of another child or children.

Leadership approaches--A child is perceived as displaying leadership approaches when he attempts to command, direct, order, request, persuade, or demand the cooperation of another child or children. This also includes a child's attempt to initiate new activities and/or new ideas.

Submissive followership--A child is perceived as displaying submissive followership when he submits to, accepts, performs, or imitates according to another child or children's leadership approaches.

Unsubmissive followership--A child is perceived as displaying unsubmissive followership when he either: (1) ignores or does not comply to another child or children's leadership approaches but continues what he is doing; or (2) leaves or does not join a group when another child initiates a leadership approach.

Group--A group is two or more children engaging in the same activity.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents the review of literature pertinent to this study. The discussion is organized under four major areas: (1) social behavior among nursery school children; (2) leadership behavior, (3) direct observation procedure, and (4) rating scales.

Social Behavior Among Nursery School Children

Leadership is only in existance whenever there is social participation between two or more children. Studies of social behavior of children have revealed that during early childhood, i.e., the period from about the age of two to the age of entrance into the elementary school, the child is exhibiting, acquiring, and experimenting with various social behaviors. It has generally been accepted that before and during the age of two, young children engage mainly in solitary and/or parallel play. They are relatively resistant or often do not react to other children's social approaches (Beaver, 1932). Three-year-olds are beginning to form play groups in their social participation, and by the time children are four they are quite capable of cooperative play. During these formative years children learn to develop social behavior, to engage in interactions and interrelationship with other children, and to acquire social attitudes. Most significant of all, they learn in their play to refine their behavioral skills, to cooperate

and to share with others, to be creative in their play, and to lead as well as to follow.

It is recognized that nursery school and kindergarten attendance offers opportunities for the acquisition of social experiences. Under the guidance of teachers, children learn to put into practice social skills which gradually replace their primarily self-centered or egocentric social behavior. Thus, nursery schools provide a good environment for the study of preschoolers' various social behaviors or interactions.

Parten (1932) was one of the first researcher to classify group play or group participation of preschool children into the following categories: unoccupied behavior, solitary play, onlooker behavior, parallel play, associative play, and cooperative or organized supplementary play. Parten also found that cooperative and organized play, coupled with dramatic play, increase during the child's third year.

Hurlock (1950) pointed out that children are not born social, i.e., not endowed with an inherited capacity to get along with others right away. Children have to learn to be social by adjusting to one another's needs through interactions and interrelationships, especially during the formative years of early childhood. The condition pre-requisite to social behavior is the social group. Studies indicate that development of social behavior follows a definite sequence, from non-social or unsocial to social. It is in children's cooperative play and group activities that leadership and its related behaviors are

manifested.

Leadership Behavior

Leadership can be viewed as a social role played by an individual in a special social situation. When two or more children engage in activities together, leadership characteristics can be detected in the process of give-and-take in terms of leading and following. It is generally conceded that leadership requires membership in a group.

Research in adult leadership gives further support to the above statement through the definitions of the concept leadership. Cowley (1928) defined a leader as "an individual who is moving in a particular direction and who succeeds in inducing others to follow after him (p. 145)." Pigors, according to Hemphill (1949), explained that leadership is "a process of mutual stimulation, by successful interplay of relevant differences, controls human energy in the pursuit of a common cause (p. 4)." Pigors also defined an individual as a leader "during the time when, and insofar, as his will, feeling and insights direct and control others in the pursuit of a cause which he represents (p. 4)." Hemphill (1949, p. 5) defined leadership as the behavior of an individual when he is involved in directing group activities.

Beaver (1929) studied a preschool "gang" and found that a leader was an individual who could pull and hold a group together. Beaver indicated that a leader was imaginative, enticing, resourceful, and was one who initiated new activities. The leader was imitated and modeled. In her study, Beaver found that some nursery school children were

leaders only with certain playmates in the group. Some attempted leadership by trying to get the interest of his playmates. In attempting leadership "he calls; he invites; he announces what he is doing (p. 113)." A leader sometimes plays alone, but he can draw other children into his play. He makes many social contacts, is sympathetic, bossy, and likes to tell others how to do their duties. He is persuasive, diplomatic, and ingenious (p. 115).

Leaders have been studied in terms of numerous variables and behavior characteristics. Nursery school leaders has been observed to initiate more contacts than other children due to their ability to suggest and organize group activities. Adelberg (1930) found that nursery school leaders possessed the same leadership qualities or characteristics as leaders of other age groups; that is, they displayed initiative and organizing ability and they conformed to the rules of the group they were playing in.

One of the most significant studies of leadership among preschool children was conducted by Parten (1932). In that study of social participations of preschool children in group activities, the observations were recorded by the combination of symbol notation and narration of general activity together with the conversations of the child being observed. Leadership was defined as a "function of the personnel of the group and of its activities, as well as of each individual child (p. 430)." Parten classified leadership and followership behaviors as "following another child's directions; neither directing nor following, but pursuing own desires at will; both directing and following;

reciprocally directing or sharing leadership equally with another child; and directing the group (p. 431)." Communication between children included nonverbal expressions. In this study, "diplomat" and "bully" types of leaders were identified.

Goodenough and Tyler (1959) suggested that irrespective of age leaders had the same characteristics. They reported that the most important attributes of leaders were the "ability to recognize the special abilities and limitations of others (p. 237)," and the versatility in devising roles which would fit others' characteristics. Leaders were able to assign and depict these roles in such a way that the people would not only agree but "desire" to accept them. The leaders were able to present ideas in attractive terms.

From her studies of infants, Buhler (1931) concluded that from as early as six months an infant demonstrated "leadership" tendencies. It was observed that some children dominated by intimidating, overcoming, or attacking their companions; others dominated by inspiring, encouraging, or leading. These traits could be distinguished from as early as eight to ten months and continued as the child grew and developed. These early "leadership" tendencies were characteristic in that (1) the child leader did not lose "his balance in the presence of the other infant whom he may even console (p. 400)," and (2) he leads in initiating and exhibiting gestures or activities which were modeled or imitated.

Terman's (1904) study of the "psychology and pedagogy" of leadership among school-age children found that the leader on the average "is larger, better dressed, of more prominent parentage, brighter, more

noted for daring, more fluent of speech, better looking, greater reader, less emotional and less selfish than the automatons (p. 433)." These school-age leaders were often chosen by their peers on the bases of intelligence, congeniality, liveliness, and goodness.

Leadership is often viewed in its relation to the group structure, for it is the quality of a person's role within a particular and specific social system. Such a view finds expression in Lewin's Field Theory that an individual's behavior changes under the influence of the "social field" or "the psychological environment." Baldwin (1967) explained that " . . . the psychological environment is a representation of the physical environment in which the person lives. It is different in one important way from the physical environment, however: It pictures how the external environment impinges on the person or determines his behavior (p. 91)." Merei's (1948) experimental study of group leadership offered further evidence of its validity. He found that teacher-identified leaders became weak when placed in a new group with a tradition stronger than the leader. Although the leader might still be a stronger character than any one group member, under the pressure exerted by the group his behavior was subjected to the impact of the nature of the group tempered with the kind of person or the character of the new leader. The teacher-identified leader would then either be assimilated, or destroyed the group's traditions and introduced new ones, or accepted group traditions and lead within that framework. Thus, he assumed leadership by introducing variations and by adding new elements into the existing structure (pp. 525-532).

Direct Observation Procedures

Direct observation is widely used in the study of child behavior. It is basically "a study of spontaneous and ongoing child behavior in the setting of everyday life (Kerlinger, 1964, p. 71)." Thus the child is observed in his natural environment; the situation and time are not preplanned or prearranged. Recording is done during or immediately following the observation of the behavior.

In observational research, certain tasks are involved in developing adequate observational procedures. One of the most important considerations is to decide what is being observed. It is necessary to define operationally, that is, precisely what is to be observed or what variables are to be measured or recorded. Kerlinger (1964) suggested that the variables also should be defined behaviorally. All behaviors either have to be assigned to categories or to units of behaviors and the size of the units have to be decided. Kerlinger (1964) indicated that

> theoretically, one can attain a high degree of reliability by using small and easily observed and recorded units. One can attempt to define behavior quite operationally by listing a larger number of behavioral acts, and can thus ordinarily attain a high degree of precision and reliability. Yet in so doing one may also have so reduced the behavior that no longer bears much resemblance to the behavior one intended to observe. Thus validity has been lost. (p. 509)

Even though a higher degree of validity may be achieved when broad definitions are used, they may sometimes affect the observers' perception due to the ambiquity caused by their extensive scope. Thus, reliability is lowered. According to Kerlinger this is the "molar-molecular problem of any measurement procedure (p. 510)." The molar-molecular problem was

discussed as follows:

> The molar approach takes larger behavioral wholes as units of observation. Complete interaction units may be specified as observational targets. . . . The molecular approach, by contrast, takes smaller segments of behavior as units of observation. Each interchange or partial interchange may be recorded. . . . The molar observer will start with a general broadly defined variable . . . and consider and record a variety of behaviors under the one rubric. He depends on his experience and interpretation of the meaning of the actions he is observing. The molecular observer, on the other hand, seeks to push his own experience and interprepation out of the observational picture. He records what he sees--and no more. (p. 510)

The most widely used observational method is time sampling. This method has many advantages, as it permits objectivity, systematization, quantification, and economy. Kerlinger (1964) stated that "time sampling is the selection of behavioral units for observation at different points in time. Observation units can be chosen in systematic or in random ways so as to be representative of a defined universe of behavior (p. 513)."

Helmstadter (1970) advocated the use of time sampling procedure. It is necessary to devise a system for obtaining accurate records of what is to be observed. "In general, best results are obtained when checklists or tally sheets listing the specific behaviors of concern are used. Thus, the task of the observer should be that of checking off a behavior which he sees or of making a tally each time it occurs (p. 81)."

Wright (1960) stated that the time sampling technique is a closed procedure, for the observen fixes his attention upon specific "selected aspects of the behavior stream as they occur within uniform and short time intervals (p. 92)." He further said that

> the length, spacing, and number of intervals are intended to secure representative time samples of the target phenomena. As

> a rule with exception, descriptive categories are coded in advance for quick and precise judgments in the field and later efficient scoring. (pp. 92-93)

Kerlinger (1965), in discussing the validity and the predictive power of observational studies, noted that "the important clue to the study of validity of behavioral observation measures would seem to be construct validity (p. 507)." If the variables being measured are imbedded in a theoretical framework, certain relations should then exist. The reliability of behavioral observation measures is usually defined as the agreement among or between simultaneous and independent observers. Based on observational studies Mussen (1960) found that the agreement between observers has generally been either "'good,' 'acceptable,' 'adequate,' or 'satisfactory' (p. 99)."

Haynes and Zander (1953) noted that the problems of assessing reliability in observation of group behavior are first "the extent of agreement among observers with respect to the number of units coded; [and second] to determine the extent to which observers agree on the category or rating they assign to a specific unit of behavior (p. 411)."

It is generally agreed that the major problem of behavioral observation is the observer; the observer in the process of observing must make certain inferences. According to Kerlinger (1965), this is also the observer's basic weakness, for the observer due to human fallibility can make incorrect inferences from observations. Moreover, the presence of the observer may also influence the observational situation. Helmstadter (1970) recognized the "psychomotor limitations" of observers in recording information on observational schedules. This

is due to the simple fact that in direct recording of behavior in natural settings "events just won't wait for an observer to get his information down (p. 81)." He also noted that cultural differences exist between observers and the observed might cause differences in the interpretation of behavior.

The level of interobserver agreements influences the validity and reliability of observational research, for the burden of interpreting behavior is placed on the observers. Thus, besides deciding what to observe and establishing observational procedures, i.e., when to observe and how to record observations, the training of observers is one other problem that has to be considered. Heynes and Zander (1953) also reported that the most disagreement on data between observers are on those that demand much inference. They noted that

> observers will have the greatest problems on those categories which require integration or collation of complex phenomena. They will have the least difficulty, in contrast, with those events which are simple objective occurences which require little insight or sensitivity on the part of the observer (p. 406).

Heynes and Zander (1953) also suggested that not all persons can perform the skills required of an observer equally well. They found that some observers have the ability to understand the phenomena involved and to discuss them intelligently, but in observing a group of interacting people they may not "see" these things.

In observational studies, the observers are the measuring instruments. The training of observers is extremely important, for the reliability of the instruments is dependent upon interobserver agreements. The training process requires the observers to be familiar with the

theoretical framework of the research, to be sensitive to the dimensions of the research, and to have experience in using the observation schedule. (Heynes and Zander, 1953)

Helmstadter (1970) regarded the major advantage of observational studies to be its directness. Wright (1960) summarized the advantages of observational child studies:

> It limits with exactitude observed contents as well as temporal lengths of the behavior stream. It permits systematic control by selection of phenomena to be observed and studied. It insures representativeness and reliability by recording large numbers of commensurable observations. It is economical of research time and effect. Its coding schemes minizize equivocal judgments and prescribe definite ways to quantify whatever is observed. It goes far to achieve standardization of observer and analyst as measuring instruments. (p. 99)

Rating Scales

Kerlinger (1965) classified rating scales under the type of observations called "remembered behavior or perceived behavior." In measuring remembered or perceived behaviors, the observer, who is also the rater, is presented with a rating instrument in the form of a scale. The rater is asked to assess the person being rated on one or more characteristics, the rated person being absent. In order to do this, the rater's assessment is based on his past observations, and on his perception of the rated person or on how the rated person will behave. The rater assigns the rated person to categories or continua that have numerical values attached to them.

Although there are different kinds of rating scales, Selltiz et al. (1959) stated that all rating scales have one feature in common:

> The rater places the person or object being rated at some point along a continum or in one of an ordered series of categories, its numerical value is attached to the point or the category. (p. 345)

By and large there are two major categories of rating scales: the differential or Thurston-type scale and the summated or Likert-type scale. The Thurston-type rating scales stated that:

> each of the items is first used as a stimulus and scaled by a special panel of judges by means of one of the psychometric scaling procedures . . . Once the items have been scaled, a respondent is asked to check those statements which he agrees (or a rater checks those statements which are descriptive of the person or object being rated). The individual's scale position is then determined by some index of the central tendency of the items selected. (Helmstadter, 1970, p. 370)

In the differential scales for the measurement of behavior, the positions of the items also have usually been determined by judges into some kind of ranking or rating. The frequently used methods of securing judgments of scale position are: paired comparisons, equal-appearing intervals, and successive intervals. (Selltiz et al; 1959, p. 359)

The summated or Likert-type scale, according to Helmstadter (1970) presents a set of unscaled items to the respondent. The respondent is to indicate the extent to which he agrees or disagrees with each of the items. The total score for the individual is the summation of the ratings. This type of rating scales was characterized by Selltiz et al. (1959) not as an evenly distributed scale of favorableness-unfavorableness but as a checking of the agreeable or disagreeable statements. Each response is given a numerical score denoting favorableness or unfavorableness, and the algebraic summation of the individual's responses to all the separate items makes up the

totality of his score.

Kerlinger (1965, p. 515) stated that there are five types of rating scales: checklists, forced-choice scales, category rating scales, numerical rating scales, and graphic rating scales. Among them, the one most widely used is the graphic rating scale. Each is a scale characterized by the respondent's rating by checking at a point on a line that runs from one extreme to another of the item in question. The characteristics or items of behavior to be rated are represented as a straight line along which are placed some verbal guides. The rater is directed to indicate his rating by marking the appropriate point along the straight line or continuum. Kerlinger (1965), among others, regarded the graphic scale as the best form of rating, for this type of scale presents a continuum in the mind of the rater. Above all, the suggestion of equal intervals renders it clearly intelligible and easily usable.

SUMMARY

The review of literature has served studies relating to the various aspects of leadership behavior. Leadership can be viewed as a social role played by an individual in a given social situation. A leader is described as a person who is able to induce or influence others to follow him; who is imaginative, enticing, and resourceful; and who is capable of initiating new ideas and activities under a variety of social circumstances.

It has been observed that among young children there are two main types of leadership--the "bullying" and the "diplomatic." Some

children acquire domination by means of intimidating, overpowering, manipulating, or oppressing their companions; others take lead by means of inspiring, encouraging, guiding, or cooperating with their peers.

Various methods have been used in the study of child behavior. The time sampling method is the most widely used procedure in observational child study. Its major advantage lies in its directness. The observer's task is just to record or to make a tally each time a behavior occurs.

Rating scales are often used in the area of studying interpersonal behavior. It is of great value in measuring remembered or perceived behavior. The graphic rating scale is most commonly employed, as it is readily intelligible and can easily be made applicable.

CHAPTER III

PROCEDURE FOR THE STUDY

There were three major purposes for this study: (1) to develop a valid and reliable instrument for direct recording of leadership among nursery school children, (2) to develop a valid and reliable scale for teachers' rating of leadership among nursery school children, and (3) to determine the degree of correlation between the direct recording measure and teachers' rating of children's leadership behavior. Discussion of procedure is organized around the development and the use of the two instruments.

Development of the Nursery School Leadership Observation Schedule (NSLOS)

The first step in the development of the direct behavior observation schedule for measuring leadership among nursery school children was to identify leadership and its related behaviors. This was followed by the procedure of establishing validity and observer reliability of the instrument. The techniques used (1) for identifying leadership behaviors, (2) for determining validity, and (3) for determining observer reliability; and the form for the schedule are discussed.

Identification of Leadership Behaviors

Statements representing leadership and its related behaviors were collected from readings and from testing and observational

schedules. In addition, twenty hours of observations were made of the activities and behaviors of children in the Nursery School of the School of Home Economics at the University of North Carolina at Greensboro (UNC-G). Ten hours of observations of general activities and behaviors were recorded by the researcher in narrative form on magnetic tape. An additional ten hours were spent in observing individual children. Each child's activities and behaviors were recorded in narrative form on magnetic tape.

Based on statements from the literature and on the activities and behaviors identified from nursery school observations, a set of preliminary units of behaviors for the direct behavior observation schedule was constructed. The units were separated into three categories of behavior: Leadership Behavior, Followership Behavior, and Other Behaviors.

The preliminary set of behavior units was tested on the mothers of the children enrolled in the Toddler Program and the mothers of the children enrolled in the Two-year-old program in the UNC-G School of Home Economics Nursery School. These women, who had no connection with child development and/or early childhood education but who had children of preschool age, were asked to examine the set of behavior units and to see whether they understood the behavior units as presented. They were not told the exact critierion for each behavior unit in order to secure objectivity and impartiality, but were asked to write down examples of incidents or situations which might apply to or interpret the behaviors as indicated by each unit. After the mothers had finished writing

examples for each behavior unit, the researcher spent time with them discussing, examining, and evaluating the bases upon which they drew their examples. The researcher also asked the mothers for their definitions of leadership and their interpretations of leadership characteristics. After careful examination and interpretation of all viewpoints, the researcher made necessary modifications of and improvements on the "size" or context of each behavior unit.

Validity, Reliability, and Format of the NSLOS

The Nursery School Leadership Observation Schedule (NSLOS) was constructed which included operational definitions, examples of behaviors for each unit, and directions for using the instrument. The instrument was presented to an advisory committee for examination.

In conformity with the suggestions made by the advisory committee, further revisions were made. The revised observation schedule was then submitted to a panel of judges which appraised the content validity. The panel of judges was composed of the Director of the Nursery School, three university instructors teaching in the nursery school, and two advanced graduate students in Child Development who were also teachers in the Nursery School.

At the top of each NSLOS was the identifying information: the child's name, the observer's name, date, time, and the names of the children who were playing with the child under observation. The units of behavior were divided into three categories: Leadership Behavior, Followership Behavior, and Other Behaviors. Under the Leadership

Behavior and the Followership Behavior categories there were 18 units respectively. The Other Behaviors category was devised for recording behaviors other than those listed as leadership or followership behaviors (See Appendix B).

The observers were directed to record all the behaviors observed according to the following directions:

> During the five minute observation period, record all the behaviors as they occur. Check each leadership behavior as "Successful" or "Unsuccessful" in the blanks to the right of the statement which most nearly describes the behavior. Check each followership behavior as "Submissive" or "Unsubmissive" in the blanks to the right of the statement which most nearly describes the behavior. The behaviors which occur and are not described in either the leadership or followership categories should be recorded as "Other Behavior." (Appendix B)

The examples given below illustrate the format of the NSLOS.

LEADERSHIP BEHAVIOR

	SUC.	UNSUC.
1. verbally initiates group activity with children		
2. nonverbally initiates an act/behavior for imitation		

FOLLOWERSHIP BEHAVIOR

	SUB.	UNSUB.
1. yields to other children's initiative		
2. imitates children without verbal direction		

OTHER BEHAVIORS

1. engages in solitary activity	
2. engages in parallel play near single/group activity	

Training Observers to Use the NSLOS

Training of observers was conducted in three stages. Before the

training sessions, the observers studied (1) the NSLOS; (2) the printed instruction to observers, (3) the operational definitions, and (4) the examples of behaviors to be observed (See Appendix A) in order to assure a more precise understanding of both the qualitative and quantitative aspects of the dimensions of the behaviors. All questions raised by the observers were clarified during discussions of the observation schedule with the observers. During the second stage of the training, all observers went to the nursery school at the same time to see if they could recognize the behaviors on the NSLOS. No actual recording on the schedule was made. During the final stage of training, the observers practiced observing and recording on the schedule. Each practice period was followed by discussions for the purpose of further clarification of the understanding of the behaviors to be observed.

Use of the NSLOS

After the panel of judges had evaluated and approved the NSLOS, it was used by the researcher and one nursery school teacher to simultaneously record observations in the nursery school. Comparisons of the two sets of observations found the observers correlating quite well in their recording. Based on this experience with the instrument, it was decided that each observation should be five minutes long.

The NSLOS was used for making 384 observations in the Nursery School of the School of Home Economics at UNC-G during the free play periods over a period of three weeks. Each of the twenty-four children was observed for four 5-minute periods by four constant

observers. Each observer was to observe simultaneously but independently the behavior of the same child. The children were selected for observation at any given time by a random card sorting procedure. No child was observed more than once a day.

Scoring the NSLOS

Each child was observed for four 5-minute periods, providing a total of 20 minutes of observation. A child's score on any behavior unit was the total number of instances of the occurance of that behavior during the observation period. His score for total Successful Leadership, Unsuccessful leadership, Submissive Followership, or Unsubmissive Followership was the total number of observations of all the behavior units belonging under the particular behavior category concerned. For example, there might be recorded for one child under Successful Leadership three instances of "verbally directs act/behavior for imitation," two instances of "orders/commands other children's activity," and four instances of "creates and assigns activities/roles to children." His score for Successful Leadership Behavior would be the sum of these observations, or nine points. The final score for a given child therefore was (1) the frequencies of occurences of each of the behavior units, and (2) the sums of the four observations of those behavior units that are listed under Leadership Behavior and Followership Behavior respectively.

The Other Behaviors category was not included in the data analyses because the present study only dealt with leadership and followership behaviors. The Other Behaviors category was put in the

NSLOS to account for the time children spent in activities other than those under study.

Development of the Nursery School Leadership Rating Scale (NSLRS)

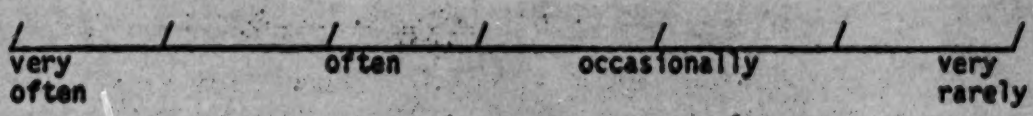
The Nursery School Leadership Rating Scale (NSLRS) was developed after the content validity of the NSLOS was developed. The panel of judges, who assessed the NSLOS, were in agreement that the NSLRS should be constructed to include the same forty-two behavior units as formulated for the NSLOS. Such a consensus was based on the fact that both instruments were to be used (1) to measure the same behavior patterns and (2) to study the correlation between the rated and the observed children's leadership behavior.

Format of the NSLRS

The forty-two units of behavior in the NSLRS correspond to those in the NSLOS: 18 units under Leadership Behavior and Followership Behavior respectively, and 6 units under Other Behaviors (See Appendix C). These behavior units were randomly placed in the NSLRS by a card sorting procedure.

For each of the forty-two behavior units, a 7-point graphic rating scale was formulated with four points defined adverbally: very often, often, occasionally, and very rarely. An example is given below:

37. Verbally initiates group activity with children



Use of the NSLRS

Seven raters used the NSLRS for rating the children enrolled at the Nursery School of the School of Home Economics at UNC-G. The seven raters were composed of three teachers and four student teachers. One teacher, who was a graduate assistant, rated both the Junior Group and the Senior Group children as she taught both groups. Each child was rated by two teachers and by two student teachers.

Scoring the NSLRS

The scoring for the NSLRS was based on the teachers' ratings. The score for any child on a given rating scale was the teachers' rating. The possible range of score for each scale was 1 to 7. A child's total score for the Leadership and Followership categories was the sum total of the scores of the scales under each category considered. The Other Behaviors category in the NSLRS, as in the NSLOS, was excluded from the data analyses because the present study only dealt with leadership and followership behaviors.

Correlation of the NSLOS and the NSLRS

The correlations between the NSLOS and the NSLRS were made for further assessment of the validity of the instruments. According to Cronbach (1970) correlating the two instruments was described as a "criterion validity" approach. However, he suggested that it was better to consider it as an application of the "construct validity" approach instead, for "construct validity is established through a long-continued interplay between observations, reasoning, and

imagination (p. 142)." In the present study, it was found that the correlation of the observed and rated behaviors could serve as a means of adding or substracting further confidence in the validity of the NSLOS and the NSLRS.

CHAPTER IV

RESULTS AND DISCUSSION

This chapter presents the analyses of the collected data and the discussion of the results and findings organized around the evaluation of the two instruments developed for this study: the Nursery School Leadership Observation Schedule (NSLOS) and the Nursery School Leadership Rating Scale (NSLRS). An account of the reliability and evidence of the validity of these instruments is included.

In order to determine reliability of the instruments, observations and ratings were made of twenty-four children who were enrolled in the Senior and Junior groups of the Nursery School of the School of Home Economics at UNC-G. Four observers were trained to use the NSLOS for observation during free play periods. Each child was under observation for four 5-minute periods. The four observers observed and recorded simultaneously, but independently.

Seven Nursery School teachers used the NSLRS to rate the leadership and followership behaviors of the twenty-four children. Four ratings were made for each child.

Method of Data Analyses

Analyses of variance of the repeated measurement type was applied to the data collected from both the NSLOS and the NSLRS. These were designed to yield two results: (1) an F ratio reflecting the significance

of the differences between the different observers' or raters' average assignment of scores to the children and (2) the intraclass correlation coefficient (R). The intraclass correlation coefficient is used as a measure of the average correlation, or agreement, between observers or raters. This measure is computed from an analysis of variance design, using the following formula (Haggard, 1958, p. 11):

$$R = \frac{\text{Between Subject Mean Square - Rater by Subject Mean Square}}{\text{Between Subject Mean Square + (K - 1) Rater by Subject Mean Square}}$$

Where K is the number of subjects rated by each rater.

This R yields a precise estimate of the figure which would be obtained of each rater's estimates were correlated with the estimates of each of the other raters and these correlation coefficients were averaged. Thus, it gives the average correlation, or agreement, between raters. The same formula is used to find the intraclass correlation coefficient between observers. The significance of R is the same as that of the F ratio for "subjects" in the analysis of variance.

It should be noted that raters and/or observers can differ in the average amount of the scores they are assigning and still show high positive relationships. For instance, the scores assigned by Raters A, B, and C for children 1, 2, and 3 were:

	RATERS		
Child Observed	A	B	C
1	10	100	40
2	20	150	50
3	30	200	60
Average (Mean)	20	150	50

Though differing markedly in their "sets" or averages, there is a direct positive relationship among the scores of the raters: Child 1 receives the lowest score in each rater's distribution, Child 2 the next lowest, and Child 3 the highest.

Evaluation of the Nursery School Leadership Observation Schedule (NSLOS)

The analyses of observations of Successful Leadership are shown in Table 1. They indicate that the mean scores for successful leadership assigned by the four observers vary from one another (M=13.8, 12.4, 7.6, and 5.6). The analysis of variance shows the differences between the observers to be highly significant ($F=30.5$, $p < .001$). It must be noted that the actual reliability of the successful leadership category is dependent upon the intraclass correlation coefficient between the observers. The correlation (R) is .85; it is significant at the .001 level of confidence. Although the observers differ in the average amount of scores they assigned, they still show a high correlation. Thus, the scores in Table 1 indicate that although the observers differed in their mean scores, their agreement as to relative rankings of successful leadership is good, the intraclass correlation being quite high. This indicates that the observation schedule is quite reliable for recording Successful Leadership behavior.

The analyses of observations of Unsuccessful Leadership is presented in Table 2. The differences among the four observers (M=3.5, 3.3, 1.6, and 1.2 respectively) are significant ($F=14.7$, $p < .001$). The correlation ($R=.67$) among the observers also is significant ($p < .001$).

Table 1

ANALYSIS OF VARIANCE OF OBSERVATIONS OF SUCCESSFUL LEADERSHIP

Source	df	MS	F	p
Observers	3	88.34	30.5	<.001
Children	23	68.69		
Error	69	2.89		
		R=.85		<.001

Table 2

ANALYSIS OF VARIANCE OF OBSERVATIONS OF UNSUCCESSFUL LEADERSHIP

Source	df	MS	F	p
Observers	3	8.04	14.7	<.001
Children	23	4.95		
Error	69	.55		
		R=.67		<.001

This again shows that although the observers may differ in recording the amount of behavior, the agreement among them in terms of correlation is high enough to be of significance.

The analyses of observations of Submissive Followership are shown in Table 3. The differences between the observers are significant at the $p < .001$ level ($F = 35.9$). The mean Submissive Followership score of each observer varies accordingly ($M = 9.0, 7.5, 4.5$, and 3.6). The intra-class correlation coefficient is .73 and is significant at $p < .001$. The analysis indicates that the observation schedule is quite reliable for recording Submissive Followership behavior.

Table 3

ANALYSIS OF VARIANCE OF OBSERVATIONS OF SUBMISSIVE FOLLOWERSHIP

Source	df	MS	F	p
Observers	3	38.12	35.9	<.001
Children	23	12.54		
Error	69	1.06		
			R=.73	<.001

The analyses of observations of Unsubmissive Followership are shown in Table 4. It depicts the significant differences in the observers' mean score (M=2.7, 2.7, 1.4, and 1.4; F=10.8, $p < .001$). It also shows that R is .63, and is consequently significant ($p < .001$). Such a correlation indicates the statistical reliability of this category in the NSLOS.

Table 4

ANALYSIS OF VARIANCE OF OBSERVATIONS OF UNSUBMISSIVE FOLLOWERSHIP

Source	df	MS	F	p
Observers	3	3.45	10.8	<.001
Children	23	2.47		
Error	69	0.32		
			R=.63	<.001

Table 5 clearly shows that the four observers differ consistently in their "sets" or averages; Observers 1 and 2 recorded more behaviors than Observers 3 and 4 on all types of behavioral categories. They consistently recorded the numbers of behavior units differently as shown by their mean scores. However, they all simultaneously tended to record the highest scores for Successful Leadership behavior and the lowest scores for Unsubmissive Followership behavior, with Submissive Followership and Unsuccessful Leadership scores in between.

Table 5

SUMMARY OF THE MEAN SCORES OF THE FOUR OBSERVERS ON THE NSLOS

Behavior Category	Observer 1	Observer 2	Observer 3	Observer 4
Successful Leadership	13.8	12.4	7.6	5.6
Unsuccessful Leadership	3.5	3.3	1.6	1.2
Submissive Followership	9.0	7.5	4.5	3.6
Unsubmissive Followership	2.7	2.7	1.4	1.4
Total	29.0	25.9	15.1	11.8

The intraclass correlation coefficients among the 4 observers in observing leadership and followership behaviors are high (R=.85, .67, .73, and .63), and are all significant at the .001 level. Hence, these results tend to show the observer reliability of the observation schedule.

Various reasons may be advanced for the differences that occurred among the observers. First, the amount of experience these observers had in working with nursery school-age children in a group situation could be responsible for such a variance. The recording of a higher number of behaviors could be attributed to the amount of experience gained in working with nursery school-age children. The two observers

who recorded fewer behavior units had limited experiences with nursery school children. Second, the degree of familiarity with the use of the instrument is another possible explanation for the differences. Although all the observers were given the same amount of training, one observer had developed the instrument and one observer had assisted with determining the validity of the instrument before its final version. Consequently, these observers were more familiar and adept with the instrument. Third, there is the possibility that in a group situation various observers may not always perceive and hear things in the same way. It was discovered during the discussions after certain observation periods that the observers often did not record the same number of behavior units because of failure to see or to hear certain things as each observer was located in different areas of the room. It was difficult during the observations to have all four observers situated at the same place in the room without disrupting the classroom routine. Finally, age may be a possible factor causing differences in observation; the younger observers tended to see more behavior units.

Evaluation of the Nursery School Leadership Rating Scales (NSLRS)

Since different individuals were engaged in rating two separate groups of children, the analyses of the NSLRS for the Senior and the Junior groups, were done separately. The analyses of leadership rating scores for the Senior Group are presented in Table 6. The differences between the raters are quite low ($F = 2.4$; $p < .05$) but are significant. The differences among the mean scores are M=83.5, 81.1, 77.2, and 74.2

respectively. The intraclass correlation coefficient among the raters is high (R=.79) and significant at the .001 level.

Table 6

ANALYSIS OF VARIANCE OF RATED LEADERSHIP: SENIOR GROUP

Source	df	MS	F	p
Raters	3	220.28	2.4	<.05
Children	12	1446.44		
Error	36	90.30		
			R=.79	<.001

The leadership ratings of the Junior group are shown in Table 7. The degree of correlation among the raters is good (R=.79) and significant (p <.001).

Table 7

ANALYSIS OF VARIANCE OF RATED LEADERSHIP: JUNIOR GROUP

Source	df	MS	F	p
Raters	3	1589.54	24.3	<.001
Children	10	1040.57		
Error	30	65.29		
			R=.79	<.001

When analyses for the two groups were compared, it was found that the difference among the raters in the Junior Group is greater than the difference among the raters in the Senior Group. The F ratio of 24.3 is significant at the $p < .001$ level for the Junior Group as opposed to the F ratio of 2.4 ($p < .05$) in the Senior Group (Table 6). This variance may be due to an age factor on the part of the children. Being younger, the Junior group spends more time in solitary and parallel play thereby presenting less well defined social behaviors. This phenomenon may be responsible for difficulty in rating their behaviors. The agreement in ranking the children is good, however.

Table 8 shows the analyses of Followership ratings of the Senior Group. The correlation coefficient among raters is .52 and is significant at the $p < .001$ level. It is not as high as the previously reported correlations. The difference between the raters is low but significant: $F=2.8$ and $p < .05$.

Table 8

ANALYSIS OF VARIANCE OF RATED FOLLOWERSHIP: SENIOR GROUP

Source	df	MS	F	p
Raters	3	138.53	2.8	<.05
Children	12	256.60		
Error	36	48.74		
			R=.52	<.001

Table 9 shows the analyses of the Junior group followership ratings. The rater correlation is .32 at $p < .05$. The agreement among raters is at a lower level of significance than other ratings reported. The difference among the raters is at $p < .001$ ($F=14.56$). The causes of the variation in the ratings will be discussed in the following paragraphs.

Table 9

ANALYSIS OF VARIANCE OF RATED FOLLOWERSHIP: JUNIOR GROUP

Source	df	MS	F	p
Raters	3	562.20	14.56	<.001
Children	10	109.80		
Error	30	38.62		
			R=.32	<.05

The seven raters were three Nursery School teachers and four student teachers. As mentioned in Chapter III, one of the teachers rated both the Junior Group and the Senior Group children. Each group was also rated by its own teacher and two student teachers. Thus, a total of four individuals engaged in rating each group. It could be that the composition of the group rating each child might contribute toward the variance in the ratings. The regular teachers would be better acquainted with the nursery school children than would the student

teachers. The age of the children, as mentioned before, might also play a part in the difference in the ratings among the raters. The higher correlations for the leadership ratings in both groups as compared to those for the followership ratings could be attributed to the fact that both regular teachers and student teachers were more aware of the leadership than followership behaviors. Leadership behavior, as contrasted with followership behavior, is a characteristic highly valued in this society. This behavior is also more active.

Correlation of the NSLOS and the NSLRS

The content validity of the two instruments developed for this study was determined by a panel of judges. In addition to this condition, the correlations of scores and ratings between the two instruments can be thought of as a case of the "criterion validity" approach. Cronbach (1970) described this approach and pointed out that the most frequently used criteria have been behavioral ratings, such as were used in the present study. He also noted, however, that this approach is liable to error in that it is difficult to get criteria which are of high validity. It is probably better to think of the correlations as applications of the "construct validity" approach. Cronbach stated that "construct validity is established through a long-continued interplay between observations, reasoning, and imagination (p. 142)." In this study the correlation of the observed and rated behavior serves as a means of adding or substracting further confidence in the validity of the instruments, not as an absolute validity test.

The observed Successful Leadership scores on the NSLOS correlates significantly with the rated Leadership on the NSLRS as shown in Table 10 ($R=.64$, $p < .001$). This correlation is important as a means of adding further confidence in the validity of the instruments.

The correlation of Unsuccessful Leadership with Leadership ratings is low ($R=.33$, $p < .10$). This is just at the .05 significant level.

Table 10

CORRELATIONS OF THE NSLOS AND THE NSLRS

Source	R	p
Observed Successful Leadership with Observed Unsuccessful Leadership	.36	<.05
Observed Submissive Followership with Observed Unsubmissive Followership	.33	<.10
Observed Successful Leadership with Leadership Ratings	.64	<.10
Observed Unsuccessful Leadership with Leadership Ratings	.33	<.10
Observed Submissive Followership with Followership Ratings	.23	n.s.
Observed Unsubmissive Followership with Followership Ratings	.08	n.s.

[a]A correlation of .34 is significant at the $p < .05$ level

The observed Submissive Followership score and Followership ratings, however, are not significantly correlated (R=.23). The correlation of observed Unsubmissive Followership with rated Followership is R=.08. This is not significant. This lack of significant correlations raises some questions as to the validity of the instruments. It must be noted that the analyses of the instruments are based on two kinds of correlation, namely (1) correlation among the observers and among the raters, and (2) the correlation between the observed behavior and the rated behavior. According to analyses previously presented, the correlations among the observers and raters indicate a significance. Similarly, the correlation between observers and raters on leadership behavior is significant. The fact that the followership observations and ratings do not agree however makes it evident that there is a question concerning their validity. The observers and the raters might in this conjunction be measuring different kinds of behavior. As mentioned previously, the problem might be that the teachers are less aware of followership behavior, a less valued quality in this culture. Teachers are generally more apt to report children's leadership and ascendant behavior to their parents rather than their followership and submissive behaviors. Thus, in daily encounter with the children, teachers make more effort to notice the former type of behavior than the latter ones. There is the difficulty of recalling specific types of behaviors which are responsible for the differences in retrospect.

It is also believed that, if the teachers have been given the NSLRS to study in advance early in the semester and look for behaviors

between that time and when the ratings were made, they may acquire a keener awareness of these behaviors in the children. It may be remembered that when made to directly observe the children the observers produced considerably higher agreement (R's) than did the raters who had to rely on memory. This added factor might have made some difference in their ratings. Furthermore, they may have rated differently if they rated the children twice over a period of time so as to be more observant of their behaviors. Above all, the rating scale items may need to be broadened and made more generalized in order to secure more significant correlations than what they are.

From the data as presented in Table 10, there seems to be an implication that leaders who are successful may sometimes be unsuccessful in their leadership approaches ($R=.36$, $p<.05$; $R=.33$, $p<.10$). There seems to be an indication that submissive followers are less likely to be unsubmissive followers ($R=.33$, $p<.10$), and unsubmissive followers are not really followers ($R=.08$, ns).

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Leadership is a social role played by an individual in a given social situation. Although much interest has been shown and directed toward the study of leadership in various social settings, research in leadership characteristics exhibited by nursery schoolers has been almost neglected. In response to the need for more studies made in leadership in children's groups, it is deemed most expedient for researchers to have some kind of instruments for the measurement of leadership among nursery school children.

It was the purpose of this study (1) to develop a valid and reliable instrument for direct recording of leadership behavioral characteristics of nursery school children; (2) to develop a valid and reliable scale for teachers' rating of leadership behavioral characteristics of nursery school children; and (3) to determine the degree of correlation between the observational measure of children's leadership behavioral characteristics and the teachers' ratings of children's leadership behavior.

The assumption basic to this research were formulated both on theoretical foundations and empirical research. It was assumed that (1) leadership and its characteristic behaviors can be categorized; (2) leadership behavior among nursery school children can be observed and recorded; and (3) leadership behavior among nursery school children

can be rated.

The direct behavior observation format was chosen because it allowed for objectivity, systematization, quantification, and economy. The graphic rating format was selected for the teachers' rating scales for its provision of a continuum in the mind of the rater, which enhanced clarity, easy understanding, and use.

Content validity of the instruments was established by (1) the collection and selection of statements representing leadership and its related behaviors from readings and from testing and observational schedules; (2) the observations made specifically for this study in the Nursery School of the School of Home Economics at the University of North Carolina at Greensboro. Based on these statements a preliminary set of behavior units was constructed for the NSLOS and the NSLRS for studying leadership among nursery school children. By examination and discussions coupled with constructive criticism and suggestions, an observation schedule (Nursery School Leadership Observation Schedule, NSLOS) and a teachers' rating scale (Nursery School Leadership Rating Scale, NSLRS) were formulated. The NSLOS and the NSLRS were evaluated by a panel of experienced judges who gave their final approval.

The NSLOS was so devised as to cover all the behavior within a five-minute observation period. The forty-two units of behavior in the NSLOS correspond to those in the NSLRS: 18 units under Leadership Behavior and Followership Behavior respectively, and 6 units under Other Behaviors (See Appendix C).

Realiability was determined by analyses of the collected data.

Four regular observers were chosen and trained. They were responsible for testing the reliability of the NSLOS by observing and recording simultaneously, but independently of each other. Twenty-four children were each observed four times. In testing the reliability of the NSLRS each of the twenty-four children was rated by four raters, namely, two teachers and two student teachers. The teachers rated independently without consulting each other.

The correlations of scores and ratings between the two instruments were used to further assess the validity of the NSLOS and the NSLRS. Correlating the two instruments can be thought of as a case of the "criterion validity" approach. In this study the correlation of the observed and rated behavior serves as a means of adding or substracting further confidence in the validity of the instruments.

The statistical analyses consisted of analyses of variance of the repeated measurement type. These analyses were designed to yield two results (1) a F ratio reflecting the significance of the differences between the observers' or raters' average assignment of scores to the children; and (2) an intraclass correlation coefficient (R) which reflects the average correlation or agreement between all possible pairs of raters and observers in judging the children.

The result of the observations recorded on the NSLOS showed a relatively high intraclass R among the four observers. The correlation for Successful Leadership was .85; for Unsuccessful Leadership .67; for Submissive Followership .73; and for Unsubmissive Followership .63. Those correlations were all significant at the .001 level of confidence.

The analyses of the ratings made with the NSLRS indicated that the intraclass correlation coefficients among the four raters for the Junior Group and Senior Group leadership behavior were both quite high at .79, and were significant at the .001 level. The R of followership ratings, however, were lower: R=.52 ($p < .001$) for the Senior Group and R=.32 ($p < .05$) for the Junior Group.

Possible explanations for the lower correlations among raters in rating followership behavior might be due to the fact that the raters were made up of teachers and student teachers who had varying experiences in working with nursery school children; and that followership behavior might not have been noticed as much as leadership behavior. Leadership as contrasted with followership is a characteristic valued in this society.

The correlation between the NSLOS and the NSLRS was made as a further means of determining the validity of the instruments. The correlation of observed Successful Leadership with Leadership ratings was .64 ($p < .10$). However, the correlation of observed Submissive Followership with Followership ratings was .23 and was not significant.

The NSLOS and the NSLRS in general are valid and reliable for measuring leadership among nursery school children. The lower correlation among raters and observers in scoring followership behavior could be attributed to several factors: (1) varied in proportion to the amount of experience observers had in working with children, (2) varied according to each observer's degree of familiarity with the use of the NSLOS, (3) was caused by the difficulty for observers to see and hear

similarly in a nursery school classroom situation, and (4) due to the differences in the age of the observers.

The explanations for the differences among raters may be summarized. First, it was due to the varying amount of experience the teachers and student teachers had in working with nursery school children. Second, it was due to the raters' degree of awareness of the kinds of behavior which the instrument meant to rate. Third, it could be that the size or dimensions of the behavior units was too precise for rating. Forth, it might be the result of the teachers' and student teachers' relatively less awareness of followership behaviors, because followership was not a highly valued characteristic in a competitional and dynamic society.

Other findings tended to indicate that those who were successful leaders might at times be unsuccessful in their leadership approaches. There also might be an implication that submissive followers are not likely to be unsubmissive followers and unsubmissive followers are neither followers nor leaders.

Recommendations for Improvement of the NSLOS and NSLRS

The NSLOS had been shown to be an adequate instrument for recording the leadership and followership characteristics among nursery school children. There seemed to be no apparent need for any change or correction in that instrument.

The following suggestions are offered as possible means for making the NSLRS a more sensitive scale for measuring leadership among nursery

school children. It is believed that in the future if the teachers were given the NSLRS with instructions to study before hand for a period of time, they would better understand what was expected of them and be able to identify the kinds of behavior for rating. It is also believed that if observers could rate the children twice over a period of time, the results would be better. The first rating could be used as a pre-rating practice to make the raters more proficient in observing children's behaviors. Between the first and second rating the teachers would have a few weeks for observing the children after having become fully familiar with the scales. The second ratings then could be used as the actual ratings since the raters would be more aware of and alert to the behavioral characteristics. Furthermore, the question is raised as to whether or not the behavior units as designed might be too exact to require precise ratings. If this is so, these units could be broadened and made more generalized in order to secure higher correlation among the raters.

Recommendations for Further Studies

The findings of this study tend to show that the NSLOS and the NSLRS offer promise for future research in leadership among nursery school children. The instruments are promising because many variables could be measured, namely development of leadership behavior, kinds of leaders, personality, sex, age, intelligence, ordinal position, social economic status, situational factors, etc., as they are related to leadership. A comparison could be made of the adequacy of observers

and raters in respect to the amount of experience they had in working with children. Studies could also be conducted to find whether the ages of the observers influence recording during observation.

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APPENDIX A

DEFINITIONS AND EXAMPLES OF BEHAVIORS--NURSERY SCHOOL LEADERSHIP OBSERVATION SCHEDULE (NSLOS) AND NURSERY SCHOOL LEADERSHIP RATING SCALE (NSLRS)

OPERATIONAL DEFINITIONS

Leadership--A concept that is applied to the situation when a child gives direction, command, order, request, or persuasion, etc. to other children; over whom he has influence, and from whom he gets cooperation and submission.

Followership--A concept applied to the situation when a child takes the directions and orders from another child or children. He imitates and conforms to the desires and purposes of other children.

Successful leadership--A child is perceived as displaying successful leadership when his "Leadership Behavior" acquires the compliance, performance, submission, and/or imitation of another child or children.

Unsuccessful leadership--A child is perceived as displaying unsuccessful leadership when his "Leadership Behavior" fails to acquire the compliance, performance, submission, and/or imitation of another child or children.

Submissive followership--A child is perceived as displaying submissive followership when he submits to, accepts, performs, or imitates according to another child or children's command, order, direction, request, persuasion, demand, or initiative, etc. (Leadership approaches)

Unsubmissive followership--A child is perceived as displaying unsubmissive followership when he either:

1. ignores, does not comply to, or does not respond to another child or children's initiative, command, order, direction, request, persuasion, demand, etc. (Leadership approaches) He continues what he is doing.

2. leaves or does not join the play group after he has submitted to or performs according to another child or children's leadership approaches.

Other behaviors--behaviors other than leadership or followership.

Group--A group is made up of two or more children engaging in the same activity.

Children--Children is used here in the generic sense meaning child or children.

EXAMPLES OF BEHAVIORS

LEADERSHIP BEHAVIOR

1. Verbally initiates group activity with children--e.g.
   "Let's play with the dolls."
   "Let's pretend we're going to the store."

2. Nonverbally initiates an act/behavior for imitation--e.g.
   A child pounds on the table and is immediately imitated by other children.

3. Verbally directs an act/behavior for imitation--e.g.
   "Let's play like dogs."
   "Play like you are a baby."

4. Helps to enforce group rules--e.g.
   "It's not your turn."
   "You wait till he's through."
   "Give some blocks to David."

5. Creates and assigns activities/roles to children--e.g.
   "You bake a cake. Andrea, go to the store."
   "You can be the Mommy."
   "You are my little baby."

6. Orders/commands other children's activity--e.g.
   "Bring me the truck." "You can't play with us."
   "Hurry up!" "Hey, you can't come in here."
   "The phone is ringing, David. Answer it. David! I say answer it."
   "You can take the baby into the house now."

7. Gives tactful suggestion/direction to children--e.g.
   "I'll take this. That hat looks better on you."
   "Bruce, I'll tell you when to play. You can tell me when my turn comes."
   "Let's play you are the mother. I'll come over and visit."
   "We need a baby. Why don't you be the baby?"

8. Makes forceful verbal persuasion to other children--Forcing one's opinions or ideas on others by emphasis, repetition, or insistence.
   e.g. "No. We are goin to do it this way, Harold. Did you hear? This is really the way we're goin to do it. Come on!"

9. Creates new ideas within group play activity--e.g.
   The children have been playing firemen. "Let's pretend that baby's in the house." "Get out! Your house is burning." "Somebody get the baby!"

   The children have built a boat with blocks. One says, "Let's make this an airplane."

10. Assumes authoritative role in group play--e.g. mother, father, teacher, Batman, etc. (This person gives the directions and orders.)

11. His idea/permission/opinion/approval is asked for-e.g.
"What can we put in there?"
"Can I go now?" "May I have a turn?"
"Do you like this pie?"
"Now what?"

12. Served/waited on by other children--e.g. Other children ask him:
"Do you want some coffee?"
"Here's another block like that one."
"Here's another truck."
"I'll get it for you."

13. Asks other children to join in play--e.g.
"Do you want to play with us?"
"Come play Candyland with us."

14. Gets cooperation because of play ideas and/or tact--e.g.
"If we put these blocks here, we'll have two rooms."
"Let's make this boat into a train and haul things."

15. Gets cooperation through bribery/bargaining/force--e.g.
"If you be the sister, you can play with the dolls."
"I brought a book. It's in my locker. Want to look at it? Help me stack these up and I'll let you look at my book later."

16. Insists on having own way of doing things within the group--e.g.
    a. "I want it here."
    "I say go around the table. No, don't follow me. Go around the table."

    b. Refuses to cooperate unless he is in charge/directing--e.g. The child may destroy things, interfere with other children's activities, or leave the group, when he is not having his own way.

    c. Attacks children physically to get his own way--e.g.
    Pushes a child saying, "This is our house, leave."
    Grabs a child by the shoulders, "I want you to sit here."

    d. Threatens with words/gestures to get his own way--e.g.
    Shaking his fists, "If you come in."
    "Look here Dumb-dumb, don't tell me you can't do it. It's so easy. Try!"
    "Put it on. Put it on. Well! Put it on if you want to play with us."

17. Attempts to secure material forcefully--e.g.
A child tries to get an object from another child by grabbing, pushing, biting, or hitting, etc.

18. Dictates which children can enter play group--e.g.
"Okay, you can play with us."
"We don't need you."

FOLLOWERSHIP BEHAVIOR

1. Yields to other children's initiative--The child performs an act or joins in group activity initiated by another child. e.g.
The child joins in doll play activity when another child initiates saying, "Let's play with the dolls."

2. Imitates children without verbal direction--e.g.
The child pounds on the table when another child begins to pound on the table.

3. Imitates direction of other children--e.g.
The child crawls on his hands and legs and barking like a dog, when another child says, "Play like you are a dog."

4. Adheres to group rules enforced by children--e.g. The child waits for his turn when another child tells him, "It's not your turn."

5. Assumes roles assigned by other children--e.g. The child performs the role of a baby when he is told by another child, "You are my little baby."

6. Submits to children's orders/commands--The child performs dutifully the requests, commands, or orders of another child or children. In so doing he is not expressing resentment by verbal objection or by being sullen.

   The child performs requests, commands, or orders of another child or children with signs of resentment, i.e. he performs it reluctantly by objecting verbally, physically, or being sullen.

7. Adheres to tactful suggestions/directions of children--The child responds to another child or children's tactful suggestions or directions by performance or acceptance.

8. Submits only after children's forceful persuasions--The child performs or accepts another child/children's attempt to force his or their ideas or opinions on him by emphasis, repetition, or insistence.

9. Changes role within group to play newly created role--e.g. The children have been playing firemen, one child tells the child, "Let's pretend there's a baby in the house. You be the baby. We'll get you out." The child plays the role of the baby instead of a fireman."

10. Assumes passive role within group--e.g. baby, dog, pupil, etc. (This person takes the directions and orders of others.)

11. Seeks approval/opinion/permission of other children--e.g. The child asks another child: "Does this look right?"
"May I go now?"
"Where does this go?"

12. Serves/waits on other children--The child serves other children in the following manner: "If you want some coffee, I'll bring it for you."
"Here are some other blocks like that."
"I'll do it for you."

13. Rejects own role/play to join in already organized play when asked--e.g. The child is playing by himself when he is asked by another child to join in their play. "Will you come play Candyland with us?" The child says, "Okay," and joins them.

14. Submits to play ideas of other children--e.g. The child is building a house with blocks. Another child tells him, "If we put these blocks here, we'll have two rooms." The child proceeds to dividing the space into two rooms.

15. Yields to children's bargains/bribes--The child yields/submits when another child bargains/bribes him.

16. Lets other children have their way--e.g.
    a. Yields object/material at other children's request--The child gives up an object/material when another child asks for it. e.g. The child gives another child the book he is reading when the latter asks, "Can I have the book?"

    b. Submits when attacked physically by other children--The child performs according to another child's command, order, or direction when he is attacked physically.

    c. Submits when threatened verbally/with gestures--The child performs or accepts another's command, order, or direction when he is threatened verbally or with gestures.

17. Relinquishes material if forced--The child gives up an object/ material when another child threatens him with words or gestures, or when attacked physically.

18. Enters group but is rebuffed/rejected--e.g.
The child enters into group play but is ignored or told, "Leave us alone."
"Get out of the way."

APPENDIX B

NURSERY SCHOOL LEADERSHIP OBSERVATION SCHEDULE (NSLOS)

DIRECTIONS TO OBSERVERS

1. Please fill at the top of the observation sheet the child's name, observer's name (your name), time, and date of observation.

2. In the space to the right of "CHILDREN WITH S" write the first and last names of the children playing with the child being observed.

3. Please observe the behavior of the child for 5 minutes.

4. During the five-minute observation period, record all the behaviors as they occur. Check each leadership behavior as "Successful" or "Unsuccessful" in the blanks to the right of the statement which most nearly describes the behavior. Check each followership behavior as "Submissive" or "Unsubmissive" in the blanks to the right of the statement which most nearly describes the behavior. The behaviors which occur and are not described in either the leadership or followership categories should be recorded as "Other Behavior."

NURSERY SCHOOL LEADERSHIP OBSERVATION SCHEDULE (NSLOS)

CHILD'S NAME: _____ OBSERVER'S NAME: _____

TIME: _____ DATE: _____

CHILDREN WITH S: _____

LEADERSHIP BEHAVIOR	SUC.	UNSUC.
1. verbally initiates group activity with children		
2. nonverbally initiates an act/behavior for imitation		
3. verbally directs act/behavior for imitation		
4. helps to enforce group rules		
5. creates and assigns activities/roles to children		
6. orders/commands other children's activity		
7. gives tactful suggestion/direction to children		
8. makes forceful verbal persuasion to other children		
9. creates new ideas/roles within group play activity		
10. assumes authoritative role in group play		
11. his permission/opinion/approval is asked for		
12. served/waited on by other children		
13. asks other children to join in play		
14. gets cooperation because of play ideas and/or tact		
15. gets cooperation through bribery/bargaining		
16. insists on having own way of doing things		
17. attempts to secure material forcefully		
18. dictates which children can enter play group		
Total		

FOLLOWERSHIP BEHAVIOR	SUB.	UNSUB.
1. yields to other children's initiative		
2. imitates children without verbal direction		
3. imitates direction of other children		
4. adheres to group rules enforced by children		
5. assumes roles assigned by other children		
6. submits to children's orders/commands		
7. adheres to tactful suggestions/directions of children		
8. submits only after children's forceful persuasions		
9. changes role within group to play newly created role		
10. assumes passive role within group		
11. seeks approval/opinion/permission of other children		
12. serves and waits on other children		
13. when asked rejects own play to join other's organized play		
14. submits to play ideas of other children		
15. yields to other children's bargains/bribery		
16. lets other children have their own way		
17. relinquishes material if forced		
18. enters group but is rebuffed/rejected		
TOTAL		

OTHER BEHAVIORS	
1. engages in solitary activity	
2. engages in parallel play near single/group activity	
3. socializes with other children	
4. socializes with adults	
5. seeks adult attention/help	
6. adult intervention	

APPENDIX C

NURSERY SCHOOL LEADERSHIP RATING SCALE (NSLRS)

CHILD: _____ AGE: _____ years _____ months

SEX: _____

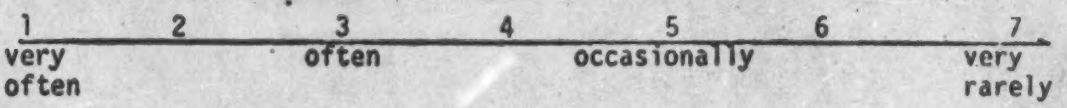
RATER: _____ DATE: _____

NURSERY SCHOOL LEADERSHIP RATING SCALE (NSLRS)

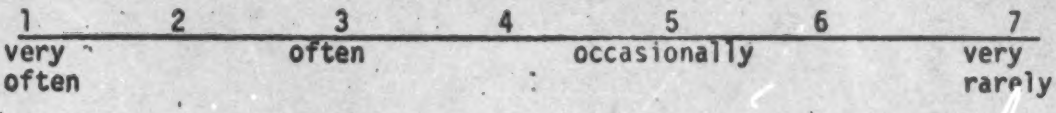
Please rate the child whose name appears above in terms of a number of behaviors. Kindly circle the number on the scale which best describes the child's usual behavior.

While there is no "typical" behavior of children at any age, please keep in mind as best you can what children of this child's age tends to be like and rate this child with reference to them.

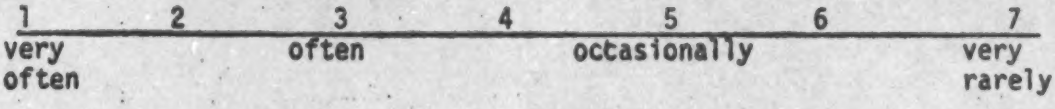
1. His permission/opinion/approval is asked for



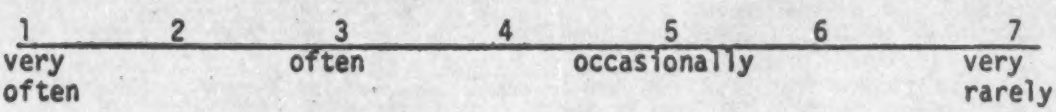
2. Yields to other children's bargains/bribery



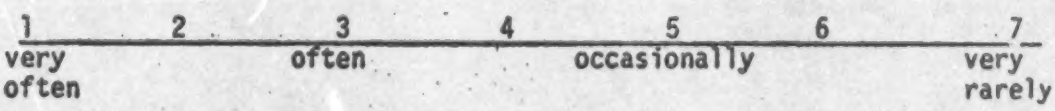
3. Gives tactful suggestion/direction to children



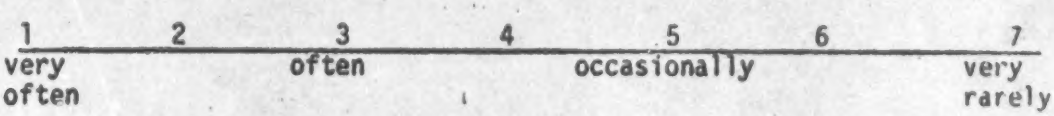
4. Initiates children without verbal direction



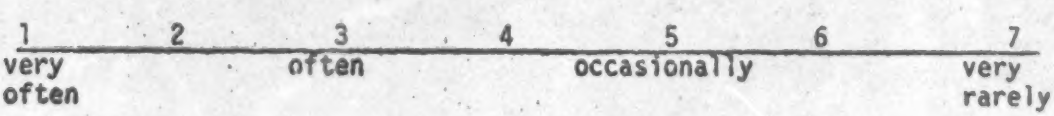
5. Enters group but is rebuffed/rejected



6. Adult intervention



7. Attempts to secure material forcefully



8. Adheres to tactful suggestions/directions of children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

9. Creates and assigns activities/roles to children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

10. Dictates which children can enter play group

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

11. Assumes passive role within group

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

12. Served/waited on by other children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

13. Yields to other children's initiative

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

14. Makes forceful verbal persuasion to other children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

15. Seeks adult attention/help

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

16. Nonverbally initiates an act/behavior for imitation

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

17. Assumes authoritative role in group play

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

18. Seeks approval/opinion/permission of other children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

19. Insists on having own way of doing things

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

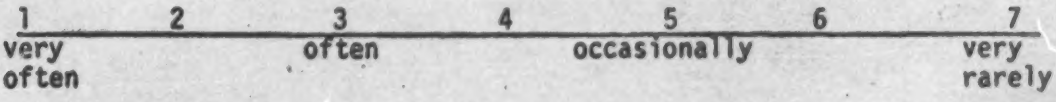
20. Helps to enforce group rules

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

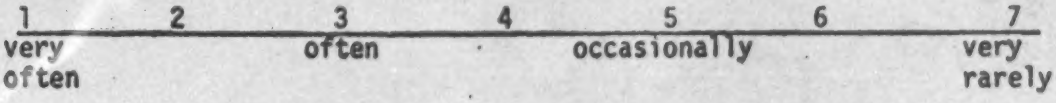
21. Submits to children's orders/commands

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

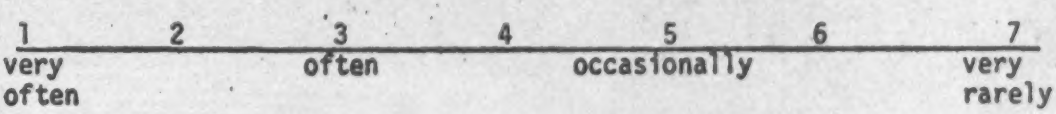
22. Lets other children have their own way



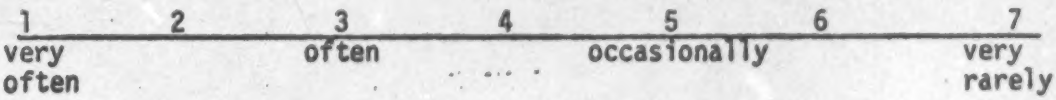
23. Gets cooperation because of play ideas and/or tact



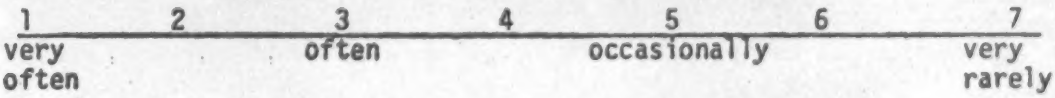
24. Assumes roles assigned by other children



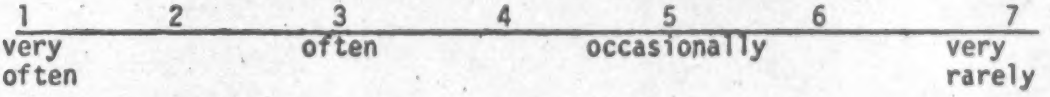
25. Submits only after children's forceful persuasions



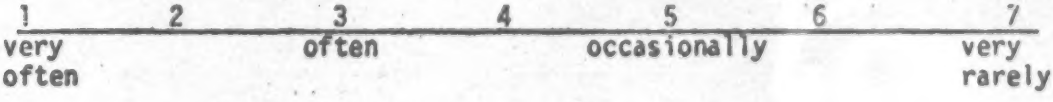
26. Verbally directs act/behavior for imitation



27. Adheres to group rules enforced by children



28. Engages in solitary activity



29. Asks other children to join in play

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

30. Relinquishes material if forced

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

31. Engages in parallel play near single/group activity

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

32. Submits to play ideas of other children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

33. Orders/commands other children's activity

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

34. Gets cooperation through bribery/bargaining

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

35. Serves and waits on other children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

36. When asked rejects own play to join others' organized play

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

37. Verbally initiates group activity with children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

38. Socializes with other children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

39. Imitates direction of other children

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

40. Changes role within group to play newly created role

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

41. Socializes with adults

1	2	3	4	5	6	7
very often		often		occasionally		very rarely

42. Creates new ideas/roles within group play activity

1	2	3	4	5	6	7
very often		often		occasionally		very rarely